

ABSTRACT OF THE DISCLOSURE

First and second semiconductor regions are formed separately from each other in a semiconductor substrate. A gate electrode is formed above the 5 semiconductor substrate which lies between the first and second semiconductor regions. An interlayer insulating film is formed on the semiconductor substrate to cover the first and second semiconductor regions and the gate electrode. First and second lower 10 electrodes are formed on the interlayer insulating film. A first contact plug is formed in the interlayer insulating film in contact with the first lower electrode. A second contact plug is formed in the interlayer insulating film in contact with the second lower 15 electrode. A first ferroelectric film is formed on the first lower electrode. A first upper electrode is formed on the first ferroelectric film. A second ferroelectric film is formed on the second lower electrode. A second upper electrode is formed on the 20 second ferroelectric film.